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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,182	09/30/2003	Seuk-Jin Yun	1349.1291	1252
21171	7590	02/14/2006	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			NGUYEN, LAM S	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/673,182	YUN, SEUK-JIN	
	Examiner	Art Unit	
	LAM S. NGUYEN	2853	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 5-6, 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogasahara et al. (US 2002/0054305 A1).

Ogasahara et al. discloses an apparatus that corrects a white line of an inkjet printer, comprising:

a driving section which positions a paper (*FIG. 37A-C: SHEET*) at printing positions including a normal position and an overfeeding position corresponding to an over feed amount of the paper (*Fig. 19A-B: A normal position is the first area where a patch is printed when the sheet is fed accurately. An overfeeding position is the second area where the white stripe appears due to feeding error*), and drives an ink cartridge in response to control signals to print a line;

a memory and control section which stores the overfeeding position and outputs the control signals (*page 15, table 1: A corresponding memory stores the feeding error during each feeding operation. Paragraph [0298-0300]: A corresponding controller shifts the range of ejection ports (nozzles) in accordance to a known error in each pass that is stored in table 1*);

a plurality of nozzles, in the ink cartridge, printing a normal printing area (*FIG. 40: Normal ejection ports 256*), and

a plurality of dummy nozzles, in the ink cartridge, printing in the overfeeding position (*paragraph [0298]: Correcting sheet feeding error by using back up ejection ports (nozzles). FIG. 40: BACKUP EJECTION PORTS*),

wherein if the printing position is just before the overfeeding position, the dummy nozzles print a width corresponding to the overfeeding amount together with the nozzles printing the normal printing area (*FIG. 40, the right printhead: When the sheet feeding error occurs at an amount corresponding to a width of two nozzles (ejection ports), two dummy nozzles (backup ejection ports) at the top end print such width together with the nozzles (normal ejection ports) for printing the normal printing area which is the area printed by 254 normal ejection ports*).

**Referring to claim 6:** wherein the ink cartridge repeatedly performs reciprocal left and right movements in response to the control signals (*FIG. 2*).

**Referring to claim 9:** wherein the nozzles and the dummy nozzles are formed in the underside of the ink cartridge (*FIG. 40, element HEAD*).

**Referring to claim 10:** wherein the printing is implemented by the nozzles located in a printing area retreated from the normal printing area by the width of the dummy nozzles until the printing is terminated starting from the line positioned just after the overfeeding position (*FIG. 37B-C, and 40*).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasahara et al. (US 2002/0054305 A1) in view of Yamasaki et al. (US 2003/0048326 A1). (*For rejection regarding to claims 2 and 4, please refer to claim 10*).

Ogasahara et al. discloses the claimed invention as discussed above and also teaches a pickup roller to pick up a paper when a printing command is inputted (*FIG. 43A-B, elements 3A-B*), judging whether a leading edge of the paper enters using a paper-detection sensor and transferring the paper to the

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printing position (*paragraph [0332]*), implementing the printing using dummy nozzles which are not used in the printing of the sequential implementing operation (*Fig. 40: Backup ejection ports are not used when the sheet feeding error not occurring*), in such a way that the printing is performed for the overfeeding amount judged in the judging operation as well as for the printing width of the sequential implementing operation, when the line positioned just before the overfeeding position judged in the judging operation is printed (*FIG. 40: when the sheet feeding error occurring, both the normal and backup ejection ports are implemented to print the preset printing width*).

However, Ogasahara et al. does not disclose judging a stored characteristic overfeeding amount and characteristic overfeeding position corresponding to the paper by determining a type of the paper being used.

Yamasaki et al. teaches that the precision of the sub-scan feed of a printing medium depends on the type of the printing medium. For example, the actual feed amount (overfeeding or underfeeding amount) may vary considerably between printing media with easy-slip surfaces and printing media with surfaces that do not slip easily (*paragraph [0005]*) or between printing medium having different materials such as ordinary paper, glossy film, photographic paper (*FIG. 14*), wherein the error amount reflected by correction values are stored in a look up table (*FIG. 14*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time invention was made to modify the controller disclosed by Ogasahara et al. to also consider the type of the printing medium in determining the error feeding as disclosed by Yamasaki et al. The motivation for doing so would have been to ensure the degree of precision of the paper feed in order to obtain great effect on the image quality as taught by Yamasaka et al. (*paragraph [0006]*).

### ***Response to Arguments***

Applicant's arguments filed 12/23/2005 have been fully considered but they are not persuasive.

With regarding to claim 5-6, 9-10, the applicant argued that Ogasahara contrasts to the claimed invention because Ogasahara uses less normal ejection ports (nozzles) when there is a sheet feeding error as compared with that when a sheet feeding error does not occur. The examiner's point of view is that because the claim language only defines "... together with the nozzles printing the normal printing area" (lines 13-14), "the nozzles" as claimed can be interpreted as a subset of nozzles in "the plurality of nozzles" or "all of nozzles". As a result, Ogasahara's 254 nozzles (normal ejection ports) (right side) that print the normal printing area anticipate "the nozzles" as claimed.

With regarding to claims 1-4 and 11-21, the applicant argued that Yamasaki does not teach the motivation as set forth by the examiner because "storing the information does not necessarily indicate controlling the feed amount". The examiner's point of view is that Yamasaki is not only relied upon as teaching "storing the characteristic overfeeding amount and overfeeding position" but also relied upon as teaching judging/considering the type of printing medium based on such stored characteristics to ensure the precision in determining the feeding error. Furthermore, Yamasaki clearly states (paragraph [0005]) "*The type of printing medium used also affects the precision of the sub-scan feed of the printing medium (hereafter referred to as the "paper feed")*" and also teaches "*The degree of precision of the paper feed has a great effect on the image quality*". As a result, considering the type of printing medium based on the stored characteristics of a printing medium such as overfeeding or underfeeding amount in determining the feeding error of the printing medium would result of high precision in controlling the feed amount.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S. NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN

02/07/2006



HAI PHAM  
PRIMARY EXAMINER